



Australia: \$4.8 million to Boost University Teaching Quality

The Australian Government will invest \$4.8 million to support 32 teaching and learning projects at 21 Australian universities. One university will lead a project to improve the math skills of vocational education and training students transitioning to higher education. Another will support Chinese postgraduates to improve their academic success rate. Others include assisting indigenous students, a framework to improve English-language standards for university students, and a web-based nutrition toolkit for students.

<http://minister.innovation.gov.au/chrisbowen/MediaReleases/Pages/48milliontoboostuniversityteachingquality.aspx>

Japan: Super-PIRE project

Dr. Yasutomo Uemura, NSF PIRE awardee at Columbia University, brought 16 graduate students to Japan to visit the University of Tokyo, Kyoto University, and Spring-8 synchrotron radiation facility for one week from March 15 – 22 as part of the Super-PIRE project. This was a reciprocal visit to that made by University of Tokyo graduate students in 2012. To help prepare for their visits, the U.S. and Japanese graduate students studied the same videotaped lectures made in both New York and Tokyo.

<http://www.phys.utk.edu/superpire/index.html>

Japan: High Rates of Microbial Activity in Sediments

A team from Denmark, Germany, and Japan analyzed microbial activity in sediments at the bottom of the Mariana Trench in the western Pacific, located nearly 11,000 meters below sea level, which makes it the deepest site on Earth. Their analyses document that a highly active bacteria community exists in the sediment of the trench - even though the environment is under extreme pressure almost 1,100 times higher than at sea level. The trench sediments are inhabited by almost 7 times more bacteria than in the sediments of the surrounding abyssal plain at a much shallower water depth of 6,000 m.

<http://www.redorbit.com/news/science/1112805026/deep-ocean-contains-highly-effective-bacterial-communities-031813/>

Korea: CO₂ Management Center

The Korea Advanced Institute of Science and Technology (KAIST) and Saudi Aramco signed an agreement to collaborate on carbon management R&D by establishing a Saudi Aramco-KAIST CO₂ Management Center. KAIST and Saudi Aramco will each invest up to \$5 million annually in the center from 2013 through 2018.

<http://www.kaist.edu/edu.html>

New Zealand: New Way of Assembling Atoms

Scientists at the University of Canterbury (UC) have discovered a new way of controlling the formation of nanoscale structures. The new method harnesses fundamental quantum mechanical principles to “self-assemble” structures that could be used in a range of applications, such as new computer memories and new laser technologies. UC scientists collaborated with researchers in the United States (University of Illinois-Urbana-Champaign) and China on this research.

<http://www.scoop.co.nz/stories/ED1303/S00115/uc-scientists-discover-a-new-way-of-assembling-atoms.htm>

Singapore: Wireless Sensor to Diagnose 'Stressed' Machines Remotely

The Institute of Materials Research & Engineering and Hoestar PD Tehnology Pte Ltd. are working to deploy wireless piezoelectric sensors that will track vibrations and stresses that affect the 'health' of machinery such as motors, pumps and generators. The technology increases productivity by saving time, reducing manual checking and offering precision for detecting defects via its automated remote monitoring.

<http://www.rdmag.com/news/2013/03/wireless-sensor-diagnoses-%E2%80%9Cstressed%E2%80%9D-machines-remotely>